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PRELIMINARY HAND-BOOK OF THE COLEOPTERA OF NORTH EASTERN AMERICA.

BY CHARLES W. LENG & WM. BEUTENMÜLLER.

(CONTINUED FROM PAGE 141.)

Elaphrus Fabr.

Elytra with variolate foveæ, not striate, head wider than the thorax (except in *E. viridis*); eyes large and prominent; thorax without lateral seta; mentum tooth large, nearly as long as the lateral lobes, emarginate. The species of this genus may be found running on mud flats near streams or ponds during sunshine; they somewhat resemble *Cicindela* in shape and *Bembidium* in habit.

Anterior tarsi of male with four joints dilated.

Elytra smooth, not punctured.

Thorax coarsely and sparsely punctate beneath . . . **Clairvillei.**

Thorax finely and more densely punctate beneath.

Legs piceous **lævigatus.**

Legs pale **olivaceus.**

Elytra and thorax sparsely and coarsely punctate . . . **cicatricosus.**

Elytra punctate at sides, disc smooth **fuliginosus.**

Anterior tarsi of male with three joints dilated.

Thorax and elytra very closely and finely punctate.

Thorax cordate finely and closely punctate beneath . . . **riparius.**

Thorax coarsely punctate beneath, shining **ruscarius.**

E. Clairvillei Kirby.—Bronzy black, foveæ purplish; shining, head with very fine minute green punctures; thorax very sparsely and finely punctured at the sides, disc smooth, impressions deep; underside metallic bronze, thorax sparsely but coarsely punctate. Length, .32 inch = 8 mm.

Habitat, Can., N. Y. and westward.

E. lævigatus Lec.—Bronze, shining, legs piceous, thorax finely and densely punctate beneath; elytra not punctured, foveæ purplish. Length, .28—.32 inch = 7—8 mm.

Habitat, Michigan to California.

E. olivaceus Lec.—This species, is of rather less slender form than *lævigatus*, and the sculpture of the upper surface re-

sembles it very closely. The under surface of the thorax is very densely punctulate, more so than the majority of specimens of *riparius*; it also differs by having fine golden punctures which cover the head, thorax, sides and tips of the elytra. The legs are pale. Length, .26 inch = 6.5 mm.

Habitat, N. Y. (Catskills).

E. fuliginosus Say.—Brassy black; head and thorax punctulate; elytra as sides punctate, disc smooth; beneath metallic green. Length, .32 inch = 8 mm.

Habitat, Can., N. Y. and westward.

E. cicatricosus Lec.—Dull brassy, subelongate; thorax and elytra with sparsely and coarsely punctured, foveæ purplish, interspaces of elytra polished, scarcely punctured. Length, .28 inch = 7 mm.

Habitat, Northern N. Y., Canada.

E. riparius Linn.—Closely allied to *E. ruscarius*, but is somewhat more elongate in form, and the thorax is densely and finely punctate beneath. Length, .28 inch = 7 mm.

Habitat, Canada, westward to California and Alaska, also Asia and Europe.

E. ruscarius Say. (Plate III, Fig. 10.)—Dull brassy above, metallic beneath; foveæ on elytra purplish; head, thorax and elytra finely punctured, the latter with a few polished elevations; thorax coarsely punctate beneath. Length, .24 inch = 6 mm.

Habitat, N. E. America.

Blethisa Bon.

Related to *Elaphrus*; mentum tooth short, bifid at tip; thorax with lateral setigerous puncture; head with deep lateral grooves; elytra striate with interstitial foveæ.

Synopsis of species.

Thorax punctate above	Julii.
Thorax smooth above, quadrate	quadricollis.
Thorax subcordate, punctate beneath	multipunctata.

B. Julii Lec.—Coppery black above; thorax punctate, not broad; sides rounded, hind angles obtusely pointed; elytra broader than thorax striate, intervals 3 with five foveæ, interval 5 with three foveæ and the seventh interval more elevated than the adjoining ones, but not interrupted; body black beneath. Length, .45—.47 inch = 11—12 mm.

Habitat, Nova Scotia.

B. quadricollis *Hald.* Plate III, Fig. 11.—Blackish-bronze, black beneath, legs deep steel blue, thorax smooth, basal impressions punctate, subtruncate, slightly rounded at the sides anteriorly, hind angles rounded; elytra striate, punctured, interval 3 with five foveæ, interval 5 with three foveæ and interval 7 with two foveæ, one near the humeri and the other near the apex. Length, .60 inch = 15 mm.

Habitat, Canada, Illinois, N. Y., N. J., (also Minn.).

B. multipunctata *Linn.*—Bronzy-black above, underside black; thorax subcordate, smooth above, finely and densely punctate beneath, hind angles rather sharply pointed; elytral markings like *B. quadricollis*. Length, .48 inch = 12 mm.

Habitat, North U. S., Canada, Ill., Mich., Wisc., also Siberia and Europe.

Diachila *Mots.*

Allied to *Blethisa*; head not sulcate, elytra with feeble striæ and punctures; anterior tarsi of the male with four dilated and spongy joints.

D. subpolaris *Lec.*—Dull brassy above, black beneath; head and thorax moderately punctured, median fovea in front slightly impressed; thorax broad, sides rounded in front, sinuate behind; hind angles rectangular, carinated, base deeply impressed; elytra elongate, thorax a little broader; striæ and punctures not impressed; interval 3 with three punctures. Length, .36 inch = 9. mm.

Habitat, Hudson's Bay Terr.

Lonicera *Lat.*

First joint of antennæ very long, joints 2—6 furnished with long diverging bristles; elytra striate, with a single or double series of foveolæ; thorax narrower than the elytra.

L. cærulescens *Linn.* Plate IV, Fig. 1.—Bronzy black, shining with a single series of foveolæ on the elytra, which are striate; sides of thorax rounded, somewhat oblique posteriorly, with the hind angles not prominent, tibiæ and tarsi testaceous, femora piceous. Length, .33 inch = 8.75 mm.

Habitat, Br. Col., Lake Superior region, Can., Nova Scotia, also Siberia and Europe.

Notiophilus *Dum.*

Size small; head horizontal triangular, as broad as the thorax, eyes prominent, front with many fine grooves, elytra almost parallel, slightly broader than the thorax; anterior tibiæ obliquely truncate.

Live in damp sunny places under fallen leaves, especially at the base of trees.

Synopsis of species.

Legs wholly testaceous	æneus.
Femora black, tibiæ dark ferruginous.	
Sides of elytra testaceous	sylvaticus.
Elytra metallic bronze.	
Striæ closely placed	semistriatus.
Striæ distant, effaced at apex	sibiricus.
Legs entirely black	Hardyi.

N. æneus *Hbst.* Plate III, Fig. 12.—Metallic bronze, shining; thorax punctured, disc smooth; elytral punctures deep at the base, becoming indistinct beyond the middle. Legs testaceous. Length, .20 inch = 5 mm.

Habitat, N. Y., N. J., Pa., North. U. S.

N. semistriatus *Say.*—Metallic bronze, femora black, tibiæ dark ferruginous; elytra with striæ finely punctured, and closely placed. Length, .20 inch = 5 mm.

Habitat, New Hampshire, Canada and westward to California.

N. sibiricus *Mots.*—Metallic bronze; thorax punctured, disc on each side smooth, median line finely punctured; elytral striæ deeply punctured, effaced at the apex, intervals smooth, distinct; femora and tarsi black, tibiæ ferruginous. Length, .18 inch = 4.5 mm.

Habitat, N. E. America, westward to Siberia.

N. Hardyi *Putz.*—Metallic bronze, glossy; thorax finely punctate, disc smooth; elytra striate at sides, striæ regularly and distinctly punctured, suture with one punctured stria on each side, intervening space smooth; under side of body and legs black. Length, .16 inch = 4 mm.

Habitat, Newfoundland to New York.

N. sylvaticus *Esch.*—Metallic bronze; head with the usual series of fine grooves; thorax thickly punctured on all sides, disc with very minute punctures; elytra with a broad testaceous lateral

stripe on which are placed the punctured striæ; femora dark; tibiæ ferruginous. Length, .20 inch = 5 mm.

Habitat, White Mts., N. H., (also Vancouver Island to Alaska).

Opisthius Kirby.

Head deflexed; head and thorax much narrower than the elytra; thorax somewhat broader than long, elytra much flattened, broadly oval, foveolate, not striate.

Opisthius Richardsoni Kirby. Plate IV, Fig. 2.—Dark brassy, subopaque; elytra with three rows of large foveæ, and a row of smaller foveæ, along the outer margins; under side of body black; legs brassy. Length, .40 inch = 10 mm.

Habitat, Hudson's Bay region and westward.

Nebria Latreille.

Anterior tarsus of male moderately or feebly dilated; antennæ slender, joints all cylindrical, equaling in length two-thirds or more the length of the body; scutellar stria of elytra always distinct.

Synopsis of species.

Humeral angle distinct.

Sides of elytra subparallel.

Sides of thorax not sinuate near base.

Black; third elytral stria with at least four punctures, **suturalis.**

Sides of thorax sinuate at base; hind angles rectangular.

Hind angles distinctly rectangular; dorsal punctures distinct **Sahlbergi.**

Hind angles scarcely rectangular; dorsal punctures faint **hudsonica.**

Sides of elytra strongly rounded.

Black, legs pale yellow; sides of thorax oblique; hind angles not rectangular; elytral striæ very distinct **pallipes.**

N. suturalis Lec.—Black, sometimes shining, depressed; sides of thorax oblique; elytra with subparallel, feebly rounded sides; surface moderately deeply striate, striæ distinctly but irregularly punctured, intervals flat; third striæ with four distinct large punctures. Length, .40—.46 inch = 10—11.5 mm.

Habitat, Lake Superior region to New Hampshire.

N. Sahlbergi Fisch.—Black, legs piceous or castaneous, with the tibiæ sometimes paler; head smooth, frontal impression shallow; thorax one-half broader than long, sides strongly rounded in

front, sinuate behind, hind angles distinctly rectangular, sides moderately reflexed and with a few punctures within; basal impression moderately deep, sparsely punctured; elytra subparallel faintly striate, striæ punctured, third striæ with four or five distinct large punctures, intervals flat. Length, .40 inch = 10 mm.

Habitat, New Hampshire, westward to Oregon and Sitka.

N. hudsonica *Lec.*—Allied to *Sahlbergi*, but differs in its more depressed form and by the hind angles of the thorax being scarcely rectangular. The sides of the thorax are less rounded in front and feebly sinuate behind. The sides of the elytra are nearly parallel and the surface faintly striate, the striæ scarcely punctured, the third with four large punctures, rather vaguely defined. Length, .40—.42 inch = 10—10.5 mm.

Habitat, Hudson's Bay Territory.

N. pallipes *Say*. Plate IV, Fig. 3.—Jet black, shining, legs and antennæ pale yellowish; thorax very broad, with sides rounded, oblique behind, hind angles obtuse not rectangular; elytra deeply striate, striæ punctured, the third with five distinctly impressed large punctures, intervals convex. Length, .40—.46 inch = 10—11.5 mm.

Habitat, N. E. America.

Pelophila Dejean.

Anterior tarsi of male broadly dilated; antennæ stout, shorter than half the length of body, joints 3—4 thicker at tip, joints 3—11 distinctly flattened; scutellar stria obliterated; body robust, in form like *Blethisa*.

P. ulkei *Horn.*—Brownish æneous, shining; head with moderately deep frontal impressions, wrinkled longitudinally, strigose behind the apex; thorax nearly twice as broad as long, slightly narrower at base, sides moderately rounded in front, slightly sinuate behind, basal angles rectangular, median and apical impressions faint, the latter sparsely punctured; elytra oblong, sides feebly rounded, slightly broader behind the middle, striæ faint, punctures obsolete, intervals nearly flat, the third with four and the fifth with two large punctures, margins of elytra green; body beneath black, tibiæ brownish, femora rufous. Length, .35 inch. = 9 mm.

Habitat, Hudson's Bay Territory.

Pasimachus Bon.

Large, robust species ; antennæ inserted under frontal plate ; anterior tibiæ palmate ; thorax broad, hind angles distinct ; elytra rounded or subacute at the apex ; humeral carina of variable length ; maxillæ very obtuse at tip.

Found under stones or logs in sandy places.

Synopsis of species.

Elytra obtusely rounded behind, spine of middle tibiæ compressed, obtuse at apex.

Elytra feebly sulcate ; hind angles of thorax obtuse, not prominent, **sublævis**.
Elytra subacute behind ; spine of middle tibiæ slender, acute.

Thorax more or less constricted at base, hind angles prominent.

Hind tibiæ of male not densely pubescent on inner side.

Broad ; hind tarsi very long ; labrum broadly and feebly trilobed ; elytra smooth **depressus**.

Hind tibiæ densely pubescent on the inner side near the tip.

Form elongate ; humeral carina long, curved outwards **elongatus**.

Form elongate, larger than *elongatus* ; elytra with pairs of punctures, (sometimes wanting) . . . **punctulatus**.

P. sublævis Bon. Plate IV, Fig. 4.—Black with blue margin ; thorax rounded at sides, suddenly narrowed near the base, but not constricted ; elytra parallel at sides, convex, obtusely rounded behind ; surface feebly sulcate, sometimes nearly smooth. Length, .83—1.1 inch = 21—28 mm.

Habitat, New York, southward and westward.

P. depressus Fabr.—Black with blue margin or entirely black (var *moris* Lec.) ; thorax and elytra broad, the latter subacute behind ; hind tarsi long and slender ; labrum feebly trilobed ; mandibles feebly or not at all striate. Length, .96—1.2 inch = 24—30 mm.

Habitat, New York, southward and westward.

P. punctulatus Hald.—Allied to *depressus*, but differs by the hind tibiæ and tarsi being less slender and less elongate, the former in the male is densely pubescent near the tip on the inner side. The labrum is feebly and broadly trilobed, with the middle lobe wider, scarcely separated from the side lobes ; in most specimens rows of punctures, slightly approximate by pairs, may be seen on the elytra. Length, 1.12—1.2 inch = 28—30 mm.

Habitat, Illinois to Texas.

P. elongatus *Lec.*—Form elongate, not as broad as *P. depressus*; black with blue margin; humeral carina rather long, and curved outwards in front; hind tibiæ and tarsi less slender than in *depressus*, the former in the male are densely pubescent on the inner side near the tip. Length, .92—1.1 inch = 23—26 mm.

Habitat, New Jersey, southward and westward.

Scarites *Fabr.*

Form narrow; sides of elytra parallel, rounded behind; hind angles of thorax wanting; elytra without carina; maxillæ slightly hooked at tip.

S. subterraneus *Fabr.* Plate IV, Fig. 5.—Wholly black, shining; elytra striate; the striæ are more or less distinct. Length, .60—.80 inch = 15—20 mm.

Habitat, N. E. America, southward and westward.

var. **substriatus** *Hald.*—Differs from *subterraneus* by being much larger. Length, 1—1.20 inch = 25—30 mm.

Habitat, Ohio, Wisc. (Western and Southern States).

Dyschirius *Bon.*

Size small; thorax globular; palpi dissimilar in the sexes, the terminal joint more dilated in the male, excavate beneath with a large sensitive space; tarsi slender in both sexes; mandibles flat and arcuate.

Live in wet sandy places, where they dig holes; they may be dislodged by pouring water over their burrows or may be readily captured towards evening when they leave their hiding places.

Synopsis of species.

Elytra with three striæ or interspace tripunctate.

Epistoma broadly marginate, bidentate; basal stria of elytra absent.

Front with slight transverse impression.

Elytral striæ posteriorly distinct.

Thorax globose, legs black **nigripes.**

Front with deep transverse impression.

Elytral striæ extending to base, obliterated behind. Thorax globose.

Elytral striæ feeble; antennæ and legs black **æneolus.**

Elytral striæ stronger; base of antennæ and legs rufous, **longulus.**

Thorax transversely ovate; legs and antennæ rufous, **globulosus.**

Elytral striæ abbreviated anteriorly; antennæ and tip of elytra, and legs rufous.

Thorax transverse, ovate, elytral striæ strongly punctate **hæmorrhoidalis.**

Thorax quadrate globose; elytral striæ feebly punctate **terminatus.**

Elytra with third interspace bipunctate or impunctate, not margined at base.

Anterior tibiæ not or scarcely dentate at the outer side.

Bronzed, head smooth, shining; legs rufous.

Apical spur of front tibiæ very short; epistoma truncate.

Elytral striæ coarsely punctured, obliterated behind, **brevispinus**.

Apical spur of front tibiæ long.

Elytral striæ deep, entire, clypeus bisinuate, tridentate, **sphæricollis**.

Elytral striæ partly abbreviated at base.

Clypeus truncate, thorax ovate transverse **truncatus**

Clypeus truncate, thorax oval not transverse, **erythrocerus**.

Testaceous or rufous; head rugose, opaque, elytra pale, usually with a dark spot.

Thorax not longer than wide.

Angles of epistoma prominent **sellatus**.

Angles of epistoma less prominent; body smaller, and more slender **pallipennis**.

Anterior tibiæ dentate at the outer side; 8th stria distinct at tip.

Elytral striæ abbreviated in front; black bronzed, legs rufous.

Elytral striæ not obliterated behind; very elongate; clypeus sharply bidentate **filiformis**.

Elytral striæ obliterated behind.

Thorax ovate; clypeus truncate **æneus**.

Elytra with interspaces 3, 5 and 7 furnished with single rows of setigerous punctures.

Thorax short, ovate; elytral striæ faintly impressed, obliterated behind **setosus**.

Thorax globular and longer; elytral striæ more coarsely punctured, **hispidus**.

D. nigripes *Lec.*—Black, shining, sub-elongate; clypeus bidentate; thorax oval, scarcely longer than wide, very slightly narrowed in front; elytra a little wider than the thorax, sides scarcely rounded, marginal stria shortened at the humeri, striæ punctured before the middle, 2nd, 7th and 8th striæ deep at the apex; interspaces flattened, 3rd tripunctate; base of antennæ and palpi reddish. Length, .12 inch = 3 mm.

Habitat, Canada, Lake Superior.

D. æneolus *Lec.*—Black, shining, legs and antennæ also black; thorax sub-globose, not narrowed in front, sides slightly rounded anteriorly; elytra almost parallel, rounded at apex; striæ punctate, punctures obliterated externally, sutural stria distinct at apex, the two others shorter and deep, the outer one longer, marginal stria bent at humeri; third interspace tripunctate. Length, .15 inch = 3.75 mm.

Habitat, Canada, Lake Superior region (also Col., Br. Col. and Calif.).

D. longulus *Lec.*—Allied to *globulosus*; but the thorax is sub-globosè, and not narrowed in front; the elytra are more elongate, the striæ are deeper, and can be traced to the apex, although the points vanish at the middle; the 3rd interspace is tripunctate, the 8th stria profound at apex; antennæ fuscous at apex; internal spine of anterior tibiæ 3—4 as long as the outer one on the outer margin, the lower denticle acute, the upper one obsolete. Length, .11 inch = 5.5 mm.

Habitat, Canada, Lake Superior region, Ohio.

D. globulosus *Say.*—Black, shining, legs and antennæ rufous; thorax ovate, transverse; elytral striæ distinct, punctate, extending to base; obliterated behind and at sides. Length, .09—.12 inch = 2.25—3 mm.

Habitat, N. E. America.

D. hæmorrhoidalis *Dej.*—Bronzed, antennæ, legs and tips of elytra rufous, thorax ovate, transverse; elytral striæ abbreviated at base, strongly punctate, obsolete behind. Length, .13 inch = 3.35 mm.

Habitat, Ohio, also Kansas.

D. terminatus *Lec.*—Elongate, black, obscurely red at apex, polished; antennæ and palpi red; abdomen beneath and legs pitchy red; front obliquely and profoundly striated on each side; thorax sub-globose, convex; elytra as wide as thorax, striæ slightly punctate, obsolete behind, first stria incurved at apex; third interspace with three impressed spots. Length, .13 inch = 3.25 mm.

Habitat, N. Y., N. J., and probably also westward.

D. brevispinus *Lec.*—Shining black, feebly bronzed, robust, antennæ and legs rufous; thorax longer than wide, oval, a little wider behind; elytra oval, as wide as thorax, brownish at the tip, base not margined, striæ abbreviated in front, very closely punctured, obliterated a little behind the middle, 8th striæ grooved at the tip; scutellar punctures large, dorsal punctures two, one on the 3rd interspace near the base, the 2nd near the 2nd stria about the middle anterior; tibiæ not toothed on the outer edge, spur not longer than the first joint of the tarsus. Length, .135 inch = 3.4 mm.

Habitat, Michigan (Lake Superior), Ohio.

D. erythrocerus Lec.—Black, shining, antennæ, palpi and legs rufous; clypeus hardly truncate, angles a little prominent; thorax longer than broad, sub-ovate; elytra with impressed striæ, abbreviated at base, strongly punctate anteriorly, eighth stria obsolete, but grooved at the apex; intervals almost level. Length, .20 inch = 5 mm.

Habitat, N. Y., N. J., Pa., Ohio.

D. sphaericollis Say.—Bronzed, antennæ and legs dark rufous; thorax ovate; elytra deeply striate, the striæ running to the apex, punctures distinct, indistinct behind; apical spur of front tibiæ long, clypeus tridentate. Length, .22 inch = 5.5 mm.

Habitat, N. E. America.

D. truncatus Lec.—Blackish bronze, shining; legs red; head with deep frontal impressions, transverse line not profound; clypeus almost squarely truncate, with the angles rounded; antennæ rufo-piceous, base reddish; palpi and mouth reddish; thorax broader than long, ovate, narrowed in front, dorsal impression deep; elytra not wider than thorax, striæ impressed, entire, the 3rd, 4th and 5th begin at the declivity of the base, the others are shorter, and the 8th is obsolete; the punctures are moderately large and extend beyond the middle. Length, .22 inch = 5.5 mm.

Habitat, Illinois, also Mo.

D. sellatus Lec.—Pale testaceous; head rugose; clypeus broadly emarginate, acutely bidentate; thorax ovate, convex; elytra cydrindrical, convex, pale and obscured by a few darker patches; distinctly striate, punctures indistinct. Length, .18 inch = 4.5 mm.

Habitat, N. Y., N. J., near the seacoast, also Mo.

D. pallipennis Say.—Reddish, brown, black beneath; thorax globose, somewhat truncate before, rounded behind; elytral striæ distant with obsolete punctures, an obsolete oblique spot at the base, another at the tip and a still less distinct one behind the middle. Length, .16 inch = 4 mm.

Habitat, N. Y. to Fla.

D. filiformis Lec.—Brassy black, shining; slender; head with clypeus broadly emarginate and acutely bidentate; antennæ

testaceous; mouth reddish; thorax sub-quadrate, ovate, not wider than long; elytra not wider than thorax, striæ strongly but distantly punctured to the middle, the inner striæ are deeper and impunctured to the tip, where they are less deep, but at the extreme tip they are again deep; interspaces convex, 3rd not punctured; outer striæ less deep, the eighth almost effaced; abdomen rufous, paler at tip, legs testaceous. Length, .14 inch. = 3.5 mm.

Habitat, N. Y., N. J. (in salt marshes).

D. æneus Dej.—Elongate, black, shining; antennæ and legs ferruginous; thorax slightly broader than long, narrowed in front, very much rounded behind; elytra hardly wider than the thorax, cylindrical, convex, striæ seven upon each, which are tolerably deep at base, but very fine at apex, punctures large, and extend to about the middle; the marginal stria ceases at the shoulder; the four internal striæ abbreviated at base; anterior tibiæ armed externally with a strong tooth near the apex. Length, .14 inch. = 3.5 mm.

Habitat, N. Y. to Fla.

D. setosus Lec.—Black, shining, antennæ and legs testaceous; thorax ovate; elytral striæ with large punctures, striæ obliterated at the apex, and only the seventh is deep; interspaces with rows of four punctures, each with a long erect hair, other hairs are also seen at the margin of the thorax. Length, .12 inch. = 3 mm.

Habitat, Mass., N. Y., N. J. (in salt marshes).

D. hispidus Lec.—Brassy black, shining; clypeus emarginate, bidentate; forehead with transverse impression; thorax shorter than broad, ovate; elytra convex, coarsely punctate anteriorly, obliterated behind; alternate interspaces marked with minute setigerous punctures in a single series; antennæ and feet testaceous; anterior tibiæ with an inferior acute tooth and a very obsolete superior one. Length, .12 inch. = 4 mm.

Habitat, Canada and westward.

Clivina.

Allied to *Dyschirius*. Thorax more or less quadrate; palpi similar in both sexes, not dilated nor excavated in the male.

Live in damp situations, like *Dyschirius*, and may be dislodged by throwing water over their burrows.

Synopsis of species.

- Middle tibiae with a spur near outer tip, clypeus with lateral lobes.
 Anterior femora dentate near tip, paronychium very elongated **dentipes.**
 Anterior tibiae not dentate, thickened, paronychium elongate.
 Vertex sulcate.
 Head smooth, punctured behind, vertical groove deep and long; entirely rufous **impressifrons.**
 Vertex not sulcate, head and thorax smooth.
 Vertex foveate, basal angle of thorax dentate, rufous depressed **rubicunda.**
 Vertex not foveate; basal angle of thorax simple, fusco-rufous **pallida.**
 Clypeus with lateral lobes, anterior femora beneath deeply sinuate near tip, paronychium elongate, front foveate.
 Elytral striae entire, finely punctulate.
 Entirely rufous **rufa.**
 Rufous with black suture **collaris.**
 Black, legs rufo-piceus, antennae rufous **americana.**
 Elytral striae obliterated behind; black, antennae rufous.
 Thorax sub-quadrate, narrower in front; sparsely punctulate, paronychium shorter or absent, **striatopunctata.**
 Thorax ovate, elytral striae scarcely obliterated behind, **cordata.**
 Clypeus rounded at sides; anterior femora thickened, not sinuate beneath, paronychium shorter or absent.
 Vertex longitudinally sulcate; rufous; thorax elongate **ferrea.**
 Vertex not or faintly sulcate.
 Anterior tibiae with one lateral tooth, the terminal tooth rectangularly bent.
 Black, elytra maculate, thorax vaguely punctate, paronychium slender **convexa.**
 Anterior tibiae with two lateral teeth; the terminal gradually bent.
 Black, elytra maculate; thorax nearly smooth, paronychium wanting **bipustulata.**
 Black; elytra maculate; thorax punctate, paronychium short **postica.**

C. dentipes Dej. Plate IV, Fig. 7.—Black, thorax polished, smooth, legs piceous; elytra distinctly striate, punctured. Length, .30—.32 inch. = 7.5—8.5 mm.

Habitat, N. Y., southward and westward.

C. impressifrons Lec.—Entirely rufous; head punctured behind, vertex deeply grooved; elytral striae distinct. Length, .24 inch. = 6 mm.

Habitat, Canada, N. Y., N. J., Pa., Ohio, also Kans.

C. rubicunda Lec.—Rufous; head smooth, vertex foveate; basal angle of thorax dentate. Length, .26 inch. 5.25 mm.

Habitat, N. Y. to La.

C. rufa Lec.—Rufous; striæ entire, finely punctate; front foveate; anterior femora sinuate beneath near the tip. Length, .20 inch. = 5 mm.

Habitat, Ill. to La.

C. collaris Hbst.—Rufous with a rather broad black suture; elytral striæ entire, finely punctulate. Length, .20 inch. = 5 mm.

Habitat, Mass., Ohio, also Europe.

C. americana Dej.—Black; legs, antennæ and extreme outer margins of thorax and elytra rufo-piceous; elytral striæ entire, finely punctulate. Length, .20 inch. 5 mm.

Habitat, N. E. America.

C. striatopunctata Dej.—Black, antennæ rufous; thorax subquadrate, narrower in front, sparsely punctate; elytral striæ obliterated behind. Length, .20 inch. 5 mm.

Habitat, N. Y. to La.

C. ferrea Lec.—Rufous; thorax elongate; vertex longitudinally sulcate; clypeus rounded at sides; anterior femora thickened, not sinuate beneath. Length, .21 inch. = 5.25 mm.

Habitat, Ill. to Texas.

C. convexa Lec.—Black, elytra maculate; vertex faintly sulcate; thorax vaguely punctate; anterior tibiæ with one lateral tooth, the terminal tooth rectangularly bent. Length, .20 inch. 5 mm.

Habitat, N. J. to La

C. bipustulata Fabr.—Black, with two large red spot at the base of the elytra and two near the apex; thorax smooth, legs and antennæ rufous. Length, .24—.38 inch. = 6–7.5 mm.

Habitat, N. Y., southward and westward.

C. postica Lec.—Black, elytra maculate, thorax punctate; anterior tibiæ with two lateral teeth, the terminal one gradually curved. Length, .21 inch. = 5.25 mm.

Habitat, Ohio, also La. and Kan.

Schizogenius Putz.

Allied to *Clivina*; anterior tarsi more or less dilated in both sexes; mentum feebly emarginate; head with numerous longitudinal grooves.

Live in damp sandy places.

Synopsis of species.

Mentum toothed at middle; lobes obliquely emarginate; 5th interspace of elytra punctured.

Elytral striæ punctate.

- Blackish brown; elytra somewhat depressed, striæ deeper,
densely punctate **lineolatus.**
Rufous; elytral striæ feebly punctate; strongly depressed, **planulatus.**
Rufous; elytra cylindrical, striæ punctate **ferrugineous.**
Rufous; elytra strongly depressed; thoracic angles prominent
before the base **amphibius.**

S. lineolatus Say.—Blackish, legs and antennæ rufous; elytra somewhat depressed, striæ deep, and densely punctured. Length, .16 inch. = 4 mm.

Habitat, N. E. America.

S. planulatus Lec.—Rufous or purplish; strongly depressed; elytra striæ feebly punctate. Length, .20 inch. = 5 mm.

Habitat, New York.

S. ferrugineus Putz. — Rufous; elytra cylindrical, striæ deep, punctures feeble. Length, .12 inch. = 3 mm.

Habitat, N. E. America.

S. amphibius Hald.—Rufous, elytra strongly depressed, striæ deep, punctures distinct; thoracic angles prominent before the base. Length, .12 inch. = 3 mm.

Habitat, N. Y. and westward.

Ardistomis Putz.

Small species; thorax rounded, considerably narrower than elytra; margin of elytra interrupted posteriorly and with an internal plica (fold along the suture); mandibles slender prolonged and not arcuate as in other genera of *Clivinæ*.

Lives in damp sandy places like *Dyschirius*, along banks of streams and ponds.

Synopsis of species.

Black, smooth; elytra striate.

Striæ not punctured.

- Antennæ and legs piceous; 3rd interval of elytra with four to
six punctures **Schaumii*.**
Antennæ, legs and apical spot of elytra rufous **obliquata.**
Striæ punctured in front, obliterated behind **morio.**

Green or greenish black; elytra with a series of setigerous punctures.

- Thorax punctured only at the margin **viridis.**
Thoracic disc with a few punctures **puncticollis.**

* A southern species, not found northward.

A. obliquata Putz.—Black, shining; elytra striated, not punctured; legs, antennæ and apical spot of elytra rufous. Length, .28 inch. = 7 mm.

Habitat, N. J. southward.

A. morio Dej.—Black, shining; striæ punctured in front, obliterated behind, legs and antennæ rufous. Length, .32 inch. = 8 mm.

Habitat, N. J., southward.

A. viridis Say. Plate IV, Fig. 8. —Green or greenish black; legs and antennæ rufous; elytra with series of punctures each bearing a short hair; thorax punctured at the margin only. Length, .20 inch. = 5 mm.

Habitat, N. E. America to Texas.

A. puncticollis Putz.—Similar to *viridis*, but has the thorax sparsely punctured on the disc. Length, .20 inch. = 5 mm.

Habitat, Ohio, also the Southern States.

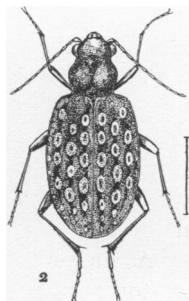
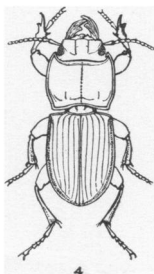
(To be continued.)

EXPLANATION OF PLATE IV.

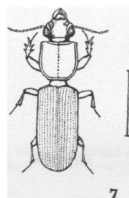
- Fig. 1. *Lonicera cærulescens* Linn.
" 2. *Opisthius Richardsoni* Kby.
" 3. *Nebria pallipes* Say.
" 4. *Pasimachus sublævis* Beauv.

- Fig. 5. *Scarites subterraneus* Fabr.
" 6. *Dyschirius erythrocerus* Lec.
" 7. *Clivina dentipes* Dej.
" 8. *Ardistomis viridis* Say.





L./OUTEL



Carabidæ of N. E. America.